

ABSTRACT

A charge transfer element comprising a reverse conductive type well formed on the surface of one conductive type semiconductor substrate, the one conductive type channel region extending in one direction relative to the well, a transfer electrode formed intersecting the channel region, a floating diffusion region formed continuous from the channel region, and an output transistor having a gate connected to the floating diffusion region. In a region where the output transistor is formed, the dopant density profile in the depth direction of the semiconductor substrate exhibits the maximum value relative to a middle region.